



NATURAL HAZARDS

Heat Emergency Plan

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Updated: 05/15/2018

PLANNING SUITE

✓ Plan

✓ Annexes

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Technical Memo: Heat Emergency Plan – 004

Date: May 15, 2018

Number: Heat Emergency Plan – 004

Subject: Heat Emergency Plan update and revisions

Summary: HEP-004 was reorganized in a new format: each section is geared towards an intended audience.

| Planning Suite | Audience |
|---|--|
| Heat Emergency Plan | All Plan Stakeholders |
| Heat Emergency Playbook | NYCEM |
| Heat Emergency Agency H.O.T. Worksheets | Agency liaisons and representatives in the EOC |
| Heat Emergency Annexes | All Plan Stakeholders |

In the Heat Emergency Plan, redundant sections were merged into one section and operational strategies are not grouped by objective.

The Heat Emergency Playbook and H.O.T. Worksheets provide tactical guidance to NYCEM and agency partners, respectively, during a heat emergency.

All technical and supporting documents previously included in the Plan are now in the Annexes.

Summary of Revisions

| Plan Section | Issue | Plan Revision | Page(s) |
|---|---------|--|---------|
| Entire Planning Suite | Format | Reformatted plan content into four documents: Heat Emergency Plan, EOC Playbook, H.O.T. Worksheets, and Annexes | All |
| EOC Playbook and H.O.T. Worksheets | Content | Revised roles and responsibilities where applicable. H.O.T. Worksheets have similar content as previously entitled "Quick Sheets." | All |
| Heat Emergency Plan: Hazard Overview; At-Risk Populations | Content | Worked with DOHMH to update the "At-Risk Populations" section. | 8 |
| Heat Emergency Plan: Objectives and Operational Strategies. | Content | Added three plan objectives and grouped operational strategies under them. New Objectives are: <ul style="list-style-type: none">Objective 1: Provide Hazard Awareness and Disseminate Public Information | 9-20 |

| | | | |
|---|-----------------|--|--------------|
| | | <ul style="list-style-type: none">• <i>Objective 2: Minimize Impacts to Public Health</i>• <i>Objective 3: Minimize Impacts to Infrastructure</i> <p><i>New Operational Strategies are:</i></p> <ul style="list-style-type: none">• <i>Operational Strategy 1.1: Disseminate Public Information</i>• <i>Operational Strategy 3.1: Relieve Stress on Electric System (same tactics as in Power Disruption Plan)</i> | |
| <i>Heat Emergency Plan: Objectives and Operational Strategies</i> | <i>Agencies</i> | <i>Removed DOE and CUNY as cooling center partners.</i> | <i>13</i> |
| <i>Heat Emergency Annex B- HESC Call Form</i> | <i>Format</i> | <i>Separated “Reporting Agencies” from “Situational Awareness” Agencies</i> | <i>24-26</i> |

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|---|----|
| Table of Contents | |
| Introduction | 6 |
| Purpose | 6 |
| Activation Triggers | 6 |
| Heat Emergency Steering Committee | 6 |
| Command Element | 6 |
| Hazard Overview..... | 7 |
| Citywide Incident Objectives Summary | 9 |
| Objective 1: Provide Hazard Awareness and Disseminate Public Messaging | 10 |
| Operational Strategy 1.1: Disseminate Public Information..... | 10 |
| Objective 2: Minimize Impacts to Public Health..... | 11 |
| Operational Strategy 2.1: Activate the Advance Warning System (AWS).... | 11 |
| Operational Strategy 2.2: Activate Cooling Centers..... | 13 |
| Operational Strategy 2.3: Conduct Homeless Outreach | 15 |
| Objective 3: Minimize Impacts to Infrastructure..... | 16 |
| Operational Strategy 3.1: Relieve Stress on Electric System | 16 |
| Operational Strategy 3.2: Issue Excavation Safety Alert | 18 |
| Operational Strategy 3.3: Distribute Spray Caps | 20 |

Introduction

Purpose

During the summer, New York City usually experiences one or more periods of extreme heat. These heat events can cause dehydration, heat exhaustion, heat stroke, and death. In addition, extreme heat can cause power outages that impact critical infrastructure and key resources in NYC. The *Heat Emergency Plan* coordinates the citywide response to heat emergencies in the five boroughs.

Activation Triggers

The *Heat Emergency Plan* will be activated based on either of the following triggers:

- Predicted heat index of 100°F or higher for one day or more
- Predicted heat index of 95°F or higher for two days or more

In the event that there is a predicted heat index of 105°F for any duration or 95°F for four days or more, excessive heat event actions will be considered.

Once activated, the *Heat Emergency Plan* uses three interagency incident objectives to respond to heat events:

- Provide hazard awareness and disseminate public messaging
- Minimize impacts to public health
- Minimize impacts to infrastructure

Heat Emergency Steering Committee

When a forecast meets either of the *Heat Emergency Plan* triggers, a Heat Emergency Steering Committee (HESC) conference call is convened by NYC Emergency Management (NYCEM) to provide situational awareness, gather agency-specific data and concerns, discuss near-term and medium-term planning issues, and identify event-specific resource requirements.

In an excessive heat event, the HESC will discuss additional outreach to at-risk populations and/or begin additional strategies to diminish morbidity/mortality through outreach and public messaging. The HESC conference call form (see Annex B) includes a list of involved agencies and agenda items.

Command Element

According to the Citywide Incident Management System (CIMS), a weather emergency is managed by a Unified Command of NYPD, FDNY, DOT, DSNY, and NYCEM. Depending on the nature of a heat emergency, other agencies (e.g., DOHMH, DEP, DFTA) may be included in the Unified Command, and subject matter experts may be added, as needed.

The Unified Command reports to the Mayor and his or her Deputy Mayors. Overall strategic direction and policy decisions are made by the Unified Command, which bears ultimate responsibility for the event.

Hazard Overview

As one of the most densely populated urban areas in the world, New York City is disproportionately affected by high temperature and humidity. During the summer months, temperatures in the city can be significantly higher than in surrounding communities. By definition, a heat emergency is a period of extreme heat and humidity that meets the criteria for the following National Weather Service (NWS) heat products:

| Product | Criteria |
|------------------------|---|
| Heat Advisory (NYC) | Issued within 24 hours of the onset of either of the following conditions: <ul style="list-style-type: none"> Heat index of at least 100°F but less than 105°F for any period of time Maximum heat index of 95°F or higher for two consecutive days |
| Excessive Heat Watch | Issued when the heat index is forecast to reach or exceed 105°F for at least two consecutive hours in the next 24 to 48 hours |
| Excessive Heat Warning | Issued when the heat index is forecast to reach or exceed 105°F for at least two consecutive hours within the next 24 hours |

The table below lists the heat index. The heat index measures the apparent temperature of the air as it increases with relative humidity:

Temperature (°F)

| | 80 | 82 | 84 | 86 | 88 | 90 | 92 | 94 | 96 | 98 | 100 | 102 | 104 | 106 | 108 | 110 |
|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 40 | 80 | 81 | 83 | 85 | 88 | 91 | 94 | 97 | 101 | 105 | 109 | 114 | 119 | 124 | 131 | 139 |
| 45 | 80 | 82 | 84 | 87 | 89 | 93 | 96 | 100 | 104 | 109 | 114 | 119 | 124 | 130 | 137 | |
| 50 | 81 | 83 | 85 | 88 | 91 | 95 | 99 | 103 | 108 | 113 | 118 | 124 | 131 | 138 | | |
| 55 | 81 | 84 | 86 | 89 | 93 | 97 | 101 | 106 | 112 | 117 | 124 | 130 | 137 | | | |
| 60 | 82 | 84 | 88 | 91 | 95 | 100 | 105 | 110 | 116 | 123 | 129 | 137 | | | | |
| 65 | 82 | 85 | 89 | 93 | 98 | 103 | 108 | 114 | 121 | 128 | 136 | | | | | |
| 70 | 83 | 86 | 90 | 95 | 100 | 105 | 112 | 119 | 126 | 134 | | | | | | |
| 75 | 84 | 88 | 92 | 97 | 103 | 109 | 116 | 124 | 132 | | | | | | | |
| 80 | 84 | 89 | 94 | 100 | 106 | 113 | 121 | 129 | | | | | | | | |
| 85 | 85 | 90 | 96 | 102 | 110 | 117 | 125 | 133 | | | | | | | | |
| 90 | 86 | 91 | 98 | 105 | 113 | 122 | 130 | | | | | | | | | |
| 95 | 86 | 93 | 100 | 108 | 117 | 127 | | | | | | | | | | |
| 100 | 87 | 95 | 103 | 112 | 121 | 132 | | | | | | | | | | |

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

 Caution
 Extreme Caution
 Danger
 Extreme Danger

At-Risk Populations

Individuals who do not have or use air conditioning and have one or more of the following risk factors may be more susceptible to heat-related illness or death:

- Aged 65 years or older
- Chronic health condition(s) including:
 - Cardiovascular, respiratory, or renal disease
 - Obesity (BMI > 30)
 - Diabetes
 - Psychiatric illness such as schizophrenia or bipolar disorder
 - Cognitive or developmental disorder that impairs judgement or self-care
- Take medications that can impair thermoregulation, including: diuretics, anticholinergics, and neuroleptics
- Misuses drugs (e.g., amphetamines, cocaine and ecstasy) or alcohol
- Socially isolated
- Has a disability or access and functional needs

In addition, power outages can occur during extreme heat when energy demand is high. Power outages could be harmful for individuals who rely on medical equipment that requires electricity.

Health Effects

Common health hazards resulting from prolonged heat exposure include:

| Health Hazard* | Symptoms |
|------------------------|--|
| Sunburn | <ul style="list-style-type: none"> • Skin redness and pain • In severe cases: <ul style="list-style-type: none"> ○ Swelling of skin ○ Blisters ○ Fevers ○ Headaches |
| Dehydration | <ul style="list-style-type: none"> • Excessive thirst • Dry lips • Slightly dry mucous membranes |
| Heat Cramps | <ul style="list-style-type: none"> • Painful spasms, usually in muscles of legs and abdomen, • Possible heavy sweating |
| Heat Exhaustion | <ul style="list-style-type: none"> • Heavy sweating • Weakness • Cold, pale, and clammy skin • Weak pulse • Possible fainting and vomiting |
| Heat Stroke | <ul style="list-style-type: none"> • Fever of 103°F or higher • Hot and dry skin • Rapid and strong pulse • Possible coma |

*For more information on heat hazards, please see Annex C.

Citywide Incident Objectives Summary

The *Heat Emergency Plan* is organized using a scalable “menu of options” principle. Any or all of the following operational strategies may be used depending on the nature of the heat event.

Objective 1: Provide Hazard Awareness and Disseminate Public Messaging

Operational Strategy 1.1: Disseminate Public Information

- Describe processes for coordinating agency and citywide messaging
- Identify responsibilities for activating public information tools and platforms

Objective 2: Minimize Impacts to Public Health

Operational Strategy 2.1: Activate the Advance Warning System

- Disseminate information on extreme heat events, potential heat hazards, and available resources, such as cooling centers, to service providers

Operational Strategy 2.2: Activate Cooling Centers

- Open air-conditioned facilities to the public to assist individuals without access to air-conditioning and to avoid heat-related illness or death

Operational Strategy 2.3: Conduct Homeless Outreach

- Increase monitoring and outreach to the homeless population
- Initiate a Code Red to encourage homeless individuals to move indoors

Objective 3: Minimize Impacts to Infrastructure

Operational Strategy 3.1: Relieve Stress on Electric System

- Identify strategies for reducing load on the electric system during heat emergencies, and especially during peak load periods

Operational Strategy 3.2: Issue Excavation Safety Alert

- Protect the integrity of underground critical facilities and heighten awareness of safe excavation practices

Operational Strategy 3.3: Distribute Spray Caps

- Distribute spray caps to the public to provide relief from the heat and conserve water
- Protect and maintain the fire hydrant water pressure system

Objective 1: Provide Hazard Awareness and Disseminate Public Messaging

Operational Strategy 1.1: Disseminate Public Information

| | |
|----------------------------|------------------|
| Coordinating Agency | NYCEM |
| Agencies | 311, DOHMH, FDNY |

Purpose

To provide information to the public and promote best practices for health and safety during heat events.

Actions

- Create a unified message with relevant agencies before release to the press.
- Work with the Human Services ESF Coordinator to disseminate heat-related information and tips through the Advance Warning System (AWS) and other established human services networks.
- Work with NYCEM Communications and the External Affairs ESF Coordinator to update the agency website, and provide 311 with regular updates on press releases and the status of the heat emergency.
- Provide the Mayor's Press Office and relevant city agencies with updates on heat emergency operations.
- Coordinate with NYCEM Intergovernmental Affairs to notify and regularly update local, state, and federal elected officials in the affected areas.
- Coordinate phone interviews, live interviews, or press conferences for NYCEM Commissioner or designated spokespersons.

Objective 2: Minimize Impacts to Public Health

Operational Strategy 2.1: Activate the Advance Warning System (AWS)

| | |
|---------------------|---|
| Lead Agency | NYCEM |
| AWS Partners | ARC/GNY, ACS, Brooklyn Public Library, CCBQ, CCNY, Con Ed, DFTA, DOC, DOE, DOE-District 75, DOHMH, DSS, DPR, DYCD, ESRD, God's Love We Deliver, HBCA, H+H, Mayor's Office, MOPD, MTA, MTA-Paratransit, NYCHA, NY Public Library, NYS DOH, NYS DHSES, NYS OMH, NYS OPWDD, PSEG-LI, Queens Public Library, SA, VA, Visiting Nurse Service of NY |

Purpose

To share information about extreme heat events, potential heat hazards, health information (e.g., risk factors and the importance of using air-conditioning), and the availability of resources such as cooling centers ([Operational Strategy 2.2](#)). Agencies and organizations, particularly those that provide services to people with special needs, can use this information to increase the awareness and preparedness of clients, staff, and partner agencies.

Actions

- If the forecast meets either of the *Heat Emergency Plan* triggers, NYCEM will notify the AWS Partners via email
- If the forecast holds, NYCEM will convene the AWS conference call after the HESC conference call (see Annex B) to provide:
 - Weather information
 - Health advisories
 - Resource updates
 - AWS Partners report
 - Outreach activities
 - Trends
 - Resource requests
- NYCEM will communicate with the AWS Partners via email, as needed, regarding:
 - Specific emergency information
 - Information regarding assistance and resources (e.g., cooling centers)

Note: For additional details regarding AWS operations, please see the *Advance Warning System Plan*.

Agency Responsibilities

| Agency | Responsibilities |
|---------------------|--|
| NYCEM | <ul style="list-style-type: none">• Send AWS email to AWS agencies following NYCEM press release• Conduct AWS conference call• Update AWS website• Repeat emails and website updates, as needed |
| AWS Partners | <ul style="list-style-type: none">• Participate in AWS conference calls• Use information to address continuity of operations issues and assist clients with emergency planning efforts. Convey messaging to any contracted agencies• Prepare to activate agency's internal continuity of operations plans• Using any appropriate method (phone, email, fax, in-person), initiate call-down to clients who may be affected and call-down to all contracted agencies or facilities with instructions to do the same<ul style="list-style-type: none">○ Share information about heat emergency, affected services, and alternatives○ When possible, assist vulnerable clients, such as helping them to assess their situations, activate their support networks, and follow personal emergency plans• Consult AWS website for additional information, reference materials, and surveys (http://advancewarningsystemnyc.org) |

Operational Strategy 2.2: Activate Cooling Centers

| | |
|---|---|
| Lead Agency | NYCEM |
| Cooling Center Providers and Locations | Brooklyn Public Library sites; DFTA senior centers; DPR facilities; DYCD facilities; NYCHA community centers; NY Public Library sites; Queens Public Library sites; SA facilities |
| Supporting Partners | 311, DoITT, NYPD |

Purpose

To provide publicly available, air-conditioned cooling centers throughout the five boroughs to help prevent heat-related illness or death, particularly for those without access to air-conditioning and for the most vulnerable populations.

Cooling Center Information:

- Cooling centers are free and open to the public
- Air conditioning and drinking water should be available at all locations
- Cooling center locations may be pools, recreation or community centers, senior centers, libraries, or other public facilities
- Cooling centers typically operate during daytime hours (with hours varying for each facility). Additional hours may be added, as warranted by the specific heat emergency
 - NYCEM will provide advance notice so that cooling center agencies can arrange staffing
 - Cooling center partners should anticipate that the city will request that they stay open late when the heat index is forecasted to be 100°F or higher for more than two consecutive days
- If the demand for cooling centers exceeds available capacity, NYCEM may coordinate the activation of additional facilities
- The public can find cooling center locations by calling 311 or going to the Cooling Center Finder, a website maintained by NYCEM and activated during heat events
- Hours will be extended when possible in an excessive heat event

Note: For additional details regarding cooling center operations, including agency responsibilities, please see the *Heat Emergency Cooling Center Protocol*.

Agency Responsibilities

| Agency | Responsibilities |
|--------------------------------|---|
| 311 | <ul style="list-style-type: none">• Provide information to callers regarding cooling center locations• Track number of inquiries |
| DoITT | <ul style="list-style-type: none">• Support maintenance and operation of the Cooling Center Finder |
| NYCEM | <ul style="list-style-type: none">• Notify cooling center partners of potential heat emergency 48 hours in advance, whenever possible• Confirm cooling center locations during a heat event• Monitor cooling center status when activated; identify alternate or additional locations if needed• Maintain Cooling Center Finder and update as necessary• Notify AWS partners of cooling center activation |
| NYPD | <ul style="list-style-type: none">• Coordinate with NYC DPR to provide security at extended-hour beaches and pools, as needed• Provide security at cooling center locations, if requested |
| Cooling Center Partners | <ul style="list-style-type: none">• Notify locations and staff of potential and actual cooling center activation• Provide NYCEM with a list of available cooling centers• Monitor status of open cooling centers and notify NYCEM of any changes throughout a heat event |

Operational Strategy 2.3: Conduct Homeless Outreach

| | |
|----------------------------|---|
| Lead Agency | DSS |
| Supporting Agencies | 311, DPR, DSNY, DSS, MTA-NYC Transit, NYCEM |

Purpose

To increase monitoring and outreach efforts to assist the chronic street homeless population. The homeless population has a high prevalence of risk factors for heat-related illness, including mental illness, social isolation, and use of certain medications, other drugs, and alcohol.

Actions

- Increase monitoring of the homeless population to determine whether they may need further protection from heat exposure, especially during the sun's peak hours (1100 HRS to 1600 HRS).
- Activate Code Red when the heat index reaches or exceeds 90°F
 - Enables NYC Homeless Outreach Teams to check on homeless individuals more frequently to encourage them to move indoors and to assess for heat-related illness
- Referrals
 - Agency employees observing homeless individuals who may be in need of non-medical assistance can request a response from one of the NYC Homeless Outreach Teams via 311
 - In the event a homeless person is in need of immediate medical care, 911 should be called

Agency Responsibilities

| Agency | Responsibilities |
|--------------------------|--|
| 311 | <ul style="list-style-type: none"> • Refer 311 calls to the appropriate NYC Homeless Outreach Team borough contact • Refer calls related to homeless persons identified in subway system to 911 |
| DSNY and DPR | <ul style="list-style-type: none"> • Monitor for homeless persons during routine operations • Request NYC Homeless Outreach Team to respond if homeless individuals are identified |
| DSS | <ul style="list-style-type: none"> • Activate Code Red and deploy Homeless Outreach Teams • Increase outreach efforts and monitoring of homeless persons to determine if they need further protection from heat exposure, especially during sun's peak hours - 1100 hours to 1600 hours • Work with partner agencies to address reports of homeless persons in need of assistance • Locate and transport individuals to a suitable facility, if applicable |
| MTA – NYC Transit | <ul style="list-style-type: none"> • Distribute heat-related bulletin to NYC Transit employees, explaining heat risks for homeless population • Monitor for homeless persons and determine whether they need further protection from heat exposure on subway platforms • Request assistance from MTA Connections Outreach (homeless outreach team), in non-medical emergency and non-rule violation cases |
| NYCEM | <ul style="list-style-type: none"> • Provide support, as requested |

Objective 3: Minimize Impacts to Infrastructure

Operational Strategy 3.1: Relieve Stress on Electric System

| | |
|--------------------------|-----------------------|
| Lead Agencies | Con Ed, DCAS, PSEG-LI |
| Supporting Agency | NYCEM |

Purpose

To proactively reduce load on the electric system during heat emergencies to prevent localized or widespread power outages. During the summer months in NYC, the amount of electricity required to run air conditioners, refrigerators and other high-consumer appliances spikes, which stresses the electric system and threatens its ability to keep up with demand. Peak loads are often reached when the overall demand reaches its maximum levels, typically between 1500 and 1800 HRS on weekdays.

Actions

Con Ed and PSEG-LI may implement one or more of the following load relief actions to decrease the demand on electric systems. See Annex D for full descriptions and impacts of each action.

- Appeal to customers to turn off non-essential electrical equipment, keep air conditioner temperatures at 78°F, and other reduce load actions
- Peak Load management
- Demand Response programs
- Voltage reductions on specific networks or systems
- Radial load shedding
- System load shedding

The Demand Response programs in NYC include agencies, businesses, and individuals that voluntarily enrolled as participants. When notified in advance of anticipated peak load periods, customers can temporarily curtail their usage by turning off lights and/or appliances, reducing or shutting down elevator service, and switching to generator power. Through a vendor, DCAS manages a formal Demand Response contract for city-owned and managed facilities.

NYCEM can amplify Con Ed and PSEG-LI customer appeals and load relief actions through NotifyNYC. Additionally, NYCEM may deploy staff to the Con Ed Situation Room when activated.

Agency Responsibilities

| Agency | Responsibilities |
|----------------|---|
| Con Ed | <ul style="list-style-type: none">• Notify NYCEM when sending out a customer appeal, implementing voltage reductions, or planning system shutdowns• Monitor and report power issues or outages to NYCEM• Monitor electric system and report peak load levels |
| DCAS | <ul style="list-style-type: none">• Notify NYCEM when the Demand Response program is activated• Monitor and report any power issues at city-owned buildings and facilities |
| NYCEM | <ul style="list-style-type: none">• Consider sending a representative to Con Ed's Situation Room if activated• Compile reports from Con Ed and PSEG-LI and brief NYCEM Leadership• Amplify customer appeal messages from Con Ed and PSEG-LI via NotifyNYC• Notify agency partners and the public when voltage reductions are implemented |
| PSEG-LI | <ul style="list-style-type: none">• Notify NYCEM when sending out a customer appeal, implementing voltage reductions, or planning system shutdowns• Monitor and report power issues or outages to NYCEM• Monitor electric system and report peak load levels |

Operational Strategy 3.2: Issue Excavation Safety Alert

| | |
|----------------------------|---|
| Lead Agency | NYCEM |
| Supporting Agencies | Con Ed, DDC, DEP, DOT, DPR, MTA, New York 811, PSEG-LI, Verizon |

Purpose

To protect the integrity of underground critical facilities and heighten awareness of safe excavation practices by issuing the Excavation Safety Alert (ESA), which supports local and state law requirements (Code 753) to protect underground critical facilities.

Actions

- If the forecast meets either of the [Heat Emergency Plan triggers](#) or if requested by Con Ed, NYCEM Watch Command will issue the ESA
- Upon receiving the ESA, supporting agencies should:
 - Notify supervisory staff that oversees construction and/or capital projects that an Excavation Safety Alert has been issued
 - Distribute the “ESA Preparedness Bulletin” to contractors (see Annex E)

Agency Responsibilities

| Agency | Responsibilities |
|---|---|
| Con Ed, PSEG-LI, Verizon | <ul style="list-style-type: none"> • Monitor work sites and contact the resident engineer and/or contractor to ascertain the method of construction planned for days on which the ESA is active • If requested, provide technical assistance to contractors |
| DDC | <ul style="list-style-type: none"> • Record an outgoing advisory message on the DDC Hotline (718-391-2777) • Contact resident engineer and/or contractor to ascertain the method of construction planned for days on which the ESA is active • If requested, provide technical assistance to contractors • Encourage contractors to consult with utilities regarding additional precautions to consider during excavation |
| DEP, DPR, MTA | <ul style="list-style-type: none"> • Monitor work sites and contact the resident engineer and/or contractor to ascertain the method of construction planned for days on which the ESA may be active • If requested, provide technical assistance to contractors • Encourage contractors to consult with utilities regarding additional suggested precautions during excavation |
| DOT | <ul style="list-style-type: none"> • Distribute the “ESA Preparedness Bulletin” to contractors at the Office of Construction Management and Mitigation • Notify the DOT Communications Center to send out a page and mobile message to all supervisors that an ESA has been issued by NYCEM • Notify the NYS Department of Transportation of the ESA • Post in every permit office that an ESA has been issued • Monitor DOT bridge contracts and encourage contractors to comply with the additional suggested precautions • At the end of the ESA, perform the following tasks: <ul style="list-style-type: none"> ○ Notify the DOT Communications Center to send out a page and mobile message to all supervisors that the ESA has been lifted by NYCEM ○ Notify the NYS Department of Transportation that the ESA has been lifted by NYCEM |

| Agency | Responsibilities |
|--------------|---|
| NYCEM | <ul style="list-style-type: none">○ Remove the postings from all permit offices |
| | <ul style="list-style-type: none">• Issue ESA• Notify NYCEM executive staff that an ESA has been issued• Notify Con Ed, DDC, DEP, DOT, PSEG-LI/National Grid, MTA, DPR, New York 811, and Verizon that an ESA has been issued• Notify Con Ed, DDC, DEP, DOT, PSEG-LI/National Grid, MTA, DPR, New York 811, and Verizon that an ESA has been deactivated |
| New York 811 | <ul style="list-style-type: none">• Disseminate ESA notification to call center operators to notify contractors planning excavations in the five boroughs that an ESA is in effect |

Operational Strategy 3.3: Distribute Spray Caps

| | |
|----------------------------|------------------|
| Lead Agency | FDNY |
| Supporting Agencies | DEP, NYCEM, NYPD |

Purpose

To reduce the amount of water wasted during hot weather when fire hydrants are illegally opened and used as sprinklers. The resulting drop in system water pressure can reduce firefighting capabilities and create potentially life-threatening situations for the public. Hydrant spray caps reduce the discharge of open hydrants from approximately 1,000 to 25 gallons per minute.

Actions

- FDNY distributes hydrant spray caps to the public to provide relief from the heat and conserve water
- Members of the community over 18 years of age can request spray caps from FDNY firehouses
- DEP installs custodian-locking devices on hydrants, which require a custodian hydrant wrench to open. FDNY and DEP are equipped with these wrenches
 - NYPD may request that FDNY install and turn on locked hydrants in sensitive locations
- For FDNY forms and procedures on the spray cap program, see Annex F

Agency Responsibilities

| Agency | Responsibilities |
|--------------|---|
| DEP | <ul style="list-style-type: none"> • Monitor water pressure and report issues on the HESC, as needed • Monitor hydrants and either report or close hydrants as needed |
| FDNY | <ul style="list-style-type: none"> • Distribute and assist with placement of spray caps • Monitor hydrants and either report or close hydrants as needed • Unlock hydrants at the request of NYPD |
| NYCEM | <ul style="list-style-type: none"> • Monitor spray cap distribution and hydrant usage based on reports from DEP, FDNY, and NYPD • Coordinate efforts between DEP, FDNY, and NYPD to preserve water and maintain water pressure • Ensure that availability of spray caps is publicized (including in <i>Beat the Heat</i> material, press releases, Notify NYC messaging, social media postings, and via 311) |
| NYPD | <ul style="list-style-type: none"> • Refer requests for spray caps to local FDNY firehouses • Help monitor hydrants and report open hydrants as needed to DEP or FDNY |

Annexes

Annex A: Acronyms.....22

Annex B: Heat Emergency Steering Committee Conference Call Form24

Annex C: Health and Air Quality Hazards34

Annex E: Excavation Safety Alert Bulletin39

Annex F: Spray Cap Program40

Annex G: Press Release Template45

Annex H: Beat the Heat49

Annex A: Acronyms

| | |
|---------|---|
| ARC/GNY | American Red Cross in Greater New York |
| CALMS | Citywide Asset and Logistics Management System |
| CAU | Mayor's Community Assistance Unit |
| CERC | Corporate Emergency Response Center (Con Ed) |
| CERT | Community Emergency Response Teams |
| CIC | Citywide Interagency Coordinator (NYCEM) |
| Con Ed | Consolidated Edison |
| DCAS | Department of Citywide Administrative Services (NYC) |
| DDC | Department of Design and Construction (NYC) |
| DEP | Department of Environmental Protection (NYC) |
| DFTA | Department for the Aging (NYC) |
| DOB | Department of Buildings (NYC) |
| DOC | Department of Correction (NYC) |
| DOE | Department of Education (NYC) |
| DOHMH | Department of Health and Mental Hygiene (NYC) |
| DoITT | Department of Information Technology and Telecommunications (NYC) |
| DOT | Department of Transportation (NYC) |
| DSNY | Department of Sanitation (NYC) |
| DSS | Department of Social Services (NYC) |
| EAS | Emergency Alert System |
| EOC | Emergency Operations Center (NYC) |
| ESA | Excavation Safety Alert |
| ESF | Emergency Support Function |
| FDNY | Fire Department (NYC) |
| GIS | Geographic Information Systems |
| GNYHA | Greater New York Hospital Association |
| H+H | Health and Hospitals |
| HAN | Health Alert Network |
| HERDS | Health Emergency Response Data System |
| HESC | Heat Emergency Steering Committee |
| HPD | Housing Preservation and Development (NYC) |
| JIC | Joint Information Center |
| LSE | Life-Sustaining Equipment |

| | |
|---------|--|
| MOIA | Mayor's Office of Immigrant Affairs |
| MOPD | Mayor's Office for People with Disabilities |
| MTA | Metropolitan Transportation Authority |
| NWS | National Weather Service |
| NYCEM | Emergency Management Department (NYC) |
| NYCHA | New York City Housing Authority |
| NYCT | New York City Transit (MTA) |
| NYPD | Police Department (NYC) |
| NYS DOH | New York State Department of Health |
| NYS DOT | New York State Department of Transportation |
| OCME | Office of Chief Medical Examiner (NYC) |
| PANYNJ | Port Authority of New York and New Jersey |
| PIO | Public Information Officer |
| PSEG-LI | Public Service Enterprise Group – Long Island |
| REMSCO | Regional Emergency Medical Services Council |
| SA | Salvation Army |
| VOAD | Voluntary Organizations Active in Disaster (NYC) |

Annex B: Heat Emergency Steering Committee Conference Call Form

| HEAT EMERGENCY STEERING COMMITTEE CALL | | VERSION 5.0 (Revised May 15, 2018) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|--|-------|--|--|--|--|--|--|-------|-------|-------|-------|-----------------|--|--|--|--|-----------------|--|--|--|--|----------------|--|--|--|--|
| OVERVIEW: The purpose of the Heat Emergency Steering Committee (HESC) conference call is to provide situational awareness to the HESC, gather agency specific data and concerns, discuss near-term and medium-term planning issues, and identify event-specific resource requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATE & TIME (/ /) @ HRS | | PHONE: () -- CALL #: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAIR: | | NWS REP: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NATIONAL WEATHER SERVICE REPORT (Products, Forecast, Severity, Duration, Onset Date/Time, End Date/Time, Precipitation, Etc.) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="text-align: center;">Products Issued:</div> <div style="margin-left: 20px;"> <input type="checkbox"/> Heat Advisory in effect until XX/XX @ XXXX HRS <input type="checkbox"/> Excessive Heat Watch <input type="checkbox"/> Excessive Heat Warning <input type="checkbox"/> Air Quality Alert (NYS DEC) </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px auto;"> <thead> <tr style="background-color: #333; color: white;"> <th colspan="5">Temperatures and Heat Indices (as of XX/XX @ XXXX HRS)</th> </tr> <tr style="background-color: #ccc;"> <th></th> <th>XX/XX</th> <th>XX/XX</th> <th>XX/XX</th> <th>XX/XX</th> </tr> </thead> <tbody> <tr> <td>High Temp. (°F)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Heat Index (°F)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Low Temp. (°F)</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | Temperatures and Heat Indices (as of XX/XX @ XXXX HRS) | | | | | | XX/XX | XX/XX | XX/XX | XX/XX | High Temp. (°F) | | | | | Heat Index (°F) | | | | | Low Temp. (°F) | | | | |
| Temperatures and Heat Indices (as of XX/XX @ XXXX HRS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | XX/XX | XX/XX | XX/XX | XX/XX | | | | | | | | | | | | | | | | | | | | | | | | |
| High Temp. (°F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Index (°F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temp. (°F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Cooling Center Report

Cooling Centers

Open [as of date: time:]

By Agency

By Borough

| | | | |
|------------------|--|---------------|--|
| DFTA | | Bronx | |
| DPR | | Brooklyn | |
| DYCD | | Manhattan | |
| NYCHA | | Queens | |
| Public Libraries | | Staten Island | |
| Salvation Army | | | |
| TOTAL | | TOTAL | |

Cooling Center Finder: ☐ Active, as of @ HRS ☐ Inactive

Facilities with extended hours:

Wheelchair accessible (#):

| AGENCIES | | |
|--|--|---|
| Reporting Agencies | | |
| <input type="checkbox"/> 311 | <input type="checkbox"/> DOE | <input type="checkbox"/> H+H |
| <input type="checkbox"/> ARC | <input type="checkbox"/> DOHMH | <input type="checkbox"/> MOPD |
| <input type="checkbox"/> CAU | <input type="checkbox"/> DoITT | <input type="checkbox"/> MTA |
| <input type="checkbox"/> CECM | <input type="checkbox"/> DPR | <input type="checkbox"/> NYCHA |
| <input type="checkbox"/> Con Edison | <input type="checkbox"/> DSS | <input type="checkbox"/> NYPD |
| <input type="checkbox"/> DCAS | <input type="checkbox"/> DM Ops Office | <input type="checkbox"/> NYS DOH |
| <input type="checkbox"/> DEP | <input type="checkbox"/> FDNY | <input type="checkbox"/> PSEG-LI |
| <input type="checkbox"/> DFTA | <input type="checkbox"/> GNYHA | <input type="checkbox"/> |
| For Situational Awareness Only | | |
| <input type="checkbox"/> 811 | <input type="checkbox"/> EDC | <input type="checkbox"/> ORR |
| <input type="checkbox"/> BOE | <input type="checkbox"/> HPD | <input type="checkbox"/> PANYNJ |
| <input type="checkbox"/> BK Public Library | <input type="checkbox"/> HRO | <input type="checkbox"/> Queens Library |
| <input type="checkbox"/> DDC | <input type="checkbox"/> MOIA | <input type="checkbox"/> REMSCO |
| <input type="checkbox"/> DOB | <input type="checkbox"/> MOIGA | <input type="checkbox"/> Salvation Army |
| <input type="checkbox"/> DOC | <input type="checkbox"/> NY Public Library | <input type="checkbox"/> Verizon |
| <input type="checkbox"/> DOT | <input type="checkbox"/> NYSDHSES | <input type="checkbox"/> VOAD |
| <input type="checkbox"/> DSNY | <input type="checkbox"/> OCME | <input type="checkbox"/> |
| <input type="checkbox"/> DYCD | <input type="checkbox"/> OLR | <input type="checkbox"/> |
| AGENDA | | |
| 1. Introduction / Attendance | NYCEM | |
| 2. Weather Outlook | National Weather Service | |
| 3. Heat-Related Health Concerns | DOHMH | |
| 4. Cooling Center Update | NYCEM Human Services | |
| 4.5. Advance Warning System | NYCEM Human Services | |
| 5. Homeless Outreach | DSS | |
| 6. Power / Utilities Update | Con Edison, PSEG-Long Island, DCAS | |
| 6.5 Excavation Safety Alert | Con Edison, DDC, DEP, DOITT, DOT, PSEG-Long Island, NYPA, MTA, New York 811, DPR | |

| | |
|---|--|
| 7. Spray Caps | <i>FDNY, DEP</i> |
| 8. Special Events | <i>CAU, CECM</i> |
| 9. 311 Inquiries | <i>311</i> |
| 10. Commonly Requested Resources – resource request procedure | <i>NYCEM Logistics</i> |
| 11. Agency Reports | <i>Agency Liaisons</i> |
| 12. Questions | <i>Agency Liaisons</i> |
| 13. Schedule Next Call | <i>National Weather Service, NYCEM</i> |
| ACTION ITEMS | |
| 1. | RESPONSIBLE PARTY: |
| 2. | RESPONSIBLE PARTY: |
| 3. | RESPONSIBLE PARTY: |
| 4. | RESPONSIBLE PARTY: |
| DATE & TIME OF NEXT CALL: (___/___/___) @ _____ HRS. | |

| Agency | Potential Discussion Items | Notes |
|--------------------|--|-------|
| NYCEM | <input type="checkbox"/> Take attendance <input type="checkbox"/> Discuss interagency activities <ul style="list-style-type: none"> ▪ Determine if Cooling Centers need to be opened, and, if so, where and when ▪ Special Needs Advance Warning System (note that separate conference call will follow for relevant agencies) ▪ Homeless outreach ▪ Excavation Safety Alert ▪ Spray cap program <input type="checkbox"/> If NWS Excessive Heat Product is issued OR if the duration of the Heat Advisory is forecast for four or more days consider: <ul style="list-style-type: none"> ▪ If additional outreach mechanisms and messaging is necessary (e.g., through AWS and/or the Vulnerable Populations or Special Needs Task Force) ▪ If Cooling Center hours should be extended <input type="checkbox"/> Track pending issues <input type="checkbox"/> Determine if EOC should be activated <input type="checkbox"/> Other concerns <input type="checkbox"/> Schedule additional HESC conference calls | • |
| Reporting Agencies | | |
| 311 | <input type="checkbox"/> Special events <input type="checkbox"/> 311 call volume <ul style="list-style-type: none"> ▪ Heat-related ▪ Homeless outreach-related ▪ Total <input type="checkbox"/> Current 311 public information efforts <input type="checkbox"/> Other concerns | • |
| ARC | <input type="checkbox"/> Emergency resources needed for response <input type="checkbox"/> Emergency Response Vehicle (ERV) availability and activity <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Available staffing <input type="checkbox"/> Other concerns | • |
| CAU | <input type="checkbox"/> Special events, especially those scheduled outdoors <input type="checkbox"/> Status of outreach efforts <input type="checkbox"/> Other concerns | • |
| CECM | <input type="checkbox"/> Special events, especially those scheduled outdoors <input type="checkbox"/> Other concerns | • |

| Agency | Potential Discussion Items | Notes |
|------------|--|-------|
| Con Edison | <input type="checkbox"/> Previous day's peak electricity usage <input type="checkbox"/> Current electricity usage <input type="checkbox"/> Customer outages <input type="checkbox"/> Excavation Safety Alert and procedures <input type="checkbox"/> Transmission and generation contingencies <input type="checkbox"/> Potential changes in service <ul style="list-style-type: none"> ▪ Voltage reductions ▪ Load shedding ▪ Outages <input type="checkbox"/> Situation Room or CERC activation <input type="checkbox"/> Other concerns | • |
| DCAS | <input type="checkbox"/> Storehouse status and hours <input type="checkbox"/> Requests from storehouse <input type="checkbox"/> Status update on Demand Response Program <input type="checkbox"/> Other concerns | • |
| DEP | <input type="checkbox"/> Water usage <input type="checkbox"/> Water pressure complaints <input type="checkbox"/> Hydrant status and complaints <ul style="list-style-type: none"> ▪ Borough reports ▪ Citywide <input type="checkbox"/> Construction contractor operations <ul style="list-style-type: none"> ▪ Borough reports ▪ Citywide <input type="checkbox"/> Excavation Safety Alert and procedures <input type="checkbox"/> Status of reservoirs <input type="checkbox"/> Planned or emergency water disruptions <input type="checkbox"/> Spray cap distribution <input type="checkbox"/> Command post(s) established <input type="checkbox"/> Other concerns | • |
| DFTA | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ▪ Open/closed ▪ Facility availability ▪ Census ▪ Power supply <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Other concerns | • |
| DOE | <input type="checkbox"/> Schools <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Other concerns | • |

| Agency | Potential Discussion Items | Notes |
|----------------------|--|-------|
| DOHMH | <input type="checkbox"/> Health advisories (including air quality alerts) <input type="checkbox"/> Syndromic surveillance reports (starting on second day of heat wave) <ul style="list-style-type: none"> ED visits and EMS calls for heat-related illness <input type="checkbox"/> Special events <input type="checkbox"/> If NWS Excessive Heat Product is issued OR if the duration of the Heat Advisory is forecast for four or more days consider: <ul style="list-style-type: none"> If additional outreach mechanisms and messaging is necessary (e.g., through AWS and/or the Special Needs or Vulnerable Populations Task Force) <input type="checkbox"/> Other concerns | • |
| DoITT | <input type="checkbox"/> Infrastructure <input type="checkbox"/> Issues with Cooling Center Finder <input type="checkbox"/> NYC.gov activities <input type="checkbox"/> Other concerns | • |
| DPR | <input type="checkbox"/> Facilities (beaches, pools, and recreation centers) <ul style="list-style-type: none"> Hours Open/closed <input type="checkbox"/> Excavation Safety Alert and procedures <input type="checkbox"/> Status of homeless outreach <input type="checkbox"/> Special events <input type="checkbox"/> Other concerns | • |
| DSS | <input type="checkbox"/> Operations <input type="checkbox"/> Capacity <input type="checkbox"/> Facilities <input type="checkbox"/> Status of homeless outreach <input type="checkbox"/> Other concerns | • |
| DM Ops Office | <input type="checkbox"/> Other concerns | • |
| FDNY | <input type="checkbox"/> EMS reports on unusual heat-related incidents <input type="checkbox"/> 911 call volume <ul style="list-style-type: none"> Heat-related (medical/fire) Total <input type="checkbox"/> Water pressure and hydrant issues <input type="checkbox"/> Spray caps <input type="checkbox"/> Special events <input type="checkbox"/> Staffing levels <input type="checkbox"/> Other concerns | • |
| GNVHA | <input type="checkbox"/> Number of hospital admissions and emergency department visits <ul style="list-style-type: none"> Heat-related Total <input type="checkbox"/> Available beds <input type="checkbox"/> Facilities <ul style="list-style-type: none"> Primary and back-up power status Communications systems <input type="checkbox"/> Other concerns | • |

| Agency | Potential Discussion Items | Notes |
|---------|--|-------|
| H+H | <input type="checkbox"/> Number of hospital admissions and emergency department visits: <ul style="list-style-type: none"> Heat-related Total <input type="checkbox"/> Available beds <input type="checkbox"/> Facilities <ul style="list-style-type: none"> Primary and back-up power status Communications systems <input type="checkbox"/> Other concerns | • |
| MOPD | <input type="checkbox"/> Heat-related inquiries <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Special events <input type="checkbox"/> Other concerns | • |
| MTA | <input type="checkbox"/> Status of transportation infrastructure and operations <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Other concerns | • |
| NYCHA | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> Open/closed Facility availability Census Power supply <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Emergency crews <input type="checkbox"/> Other concerns | • |
| NYPD | <input type="checkbox"/> 911 call volume <ul style="list-style-type: none"> Heat-related (public safety) Total <input type="checkbox"/> Unusual/heat-related incidents <input type="checkbox"/> Spray cap requests <input type="checkbox"/> Special events <input type="checkbox"/> Other concerns (e.g., Homeless Outreach Unit) | • |
| NYSDOH | <input type="checkbox"/> Status of healthcare facilities <input type="checkbox"/> HERDS Status <input type="checkbox"/> Other Concerns | • |
| PSEG-LI | <input type="checkbox"/> Previous day's peak electricity usage <input type="checkbox"/> Current electricity usage <input type="checkbox"/> Customer outages <input type="checkbox"/> Excavation Safety Alert and procedures <input type="checkbox"/> Transmission and generation contingencies <input type="checkbox"/> Potential changes in service <ul style="list-style-type: none"> Voltage reductions Load shedding Outages <input type="checkbox"/> Other concerns | • |
| Verizon | <input type="checkbox"/> Active and potential service problems <input type="checkbox"/> Worksite monitoring <input type="checkbox"/> Other concerns | • |

For Situational Awareness Only

| Agency | Potential Discussion Items | Notes |
|-------------------------|---|-------|
| 811 | <input type="checkbox"/> Excavation Safety Alert notification process <input type="checkbox"/> Other concerns | • |
| BOE | <input type="checkbox"/> Status of outreach efforts <input type="checkbox"/> Other concerns | • |
| Brooklyn Public Library | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ○ Open/closed ○ Facility availability ○ Census ○ Power supply <input type="checkbox"/> Other concerns | • |
| DDC | <input type="checkbox"/> Construction contractor operations <input type="checkbox"/> Excavation Safety Alert and procedures <ul style="list-style-type: none"> ▪ Borough reports ▪ Citywide <input type="checkbox"/> Other concerns | • |
| DOB | <input type="checkbox"/> Construction contractor operations <input type="checkbox"/> Excavation Safety Alert and procedures <ul style="list-style-type: none"> ▪ Borough reports ▪ Citywide <input type="checkbox"/> Other concerns | • |
| DOC | <input type="checkbox"/> Operations <input type="checkbox"/> Facilities <input type="checkbox"/> Other concerns | • |
| DOT | <input type="checkbox"/> Excavation Safety Alert and procedures <ul style="list-style-type: none"> ▪ Active street construction permits ▪ Borough reports ▪ Citywide <input type="checkbox"/> Street permits for special events <input type="checkbox"/> Closings and delays <input type="checkbox"/> Other concerns | • |
| DSNY | <input type="checkbox"/> Status of homeless outreach <input type="checkbox"/> Other concerns | • |
| DYCD | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ▪ Open/closed ▪ Facility availability ▪ Census ▪ Power supply <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts | • |
| EDC | <input type="checkbox"/> General concerns | • |
| HPD | <input type="checkbox"/> Facilities <input type="checkbox"/> Other concerns | • |
| HRO | <input type="checkbox"/> Other concerns | • |
| MOIA | <input type="checkbox"/> Community outreach <input type="checkbox"/> Other concerns | • |

| Agency | Potential Discussion Items | Notes |
|-------------------|---|-------|
| MOIGA | <input type="checkbox"/> Community outreach <input type="checkbox"/> Other concerns | • |
| NY Public Library | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ○ Open/closed ○ Facility availability ○ Census ○ Power supply <input type="checkbox"/> Other concerns | • |
| NYS DHSES | <input type="checkbox"/> Status of state emergency declaration, if applicable <input type="checkbox"/> Special events <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Other concerns | • |
| OCME | <input type="checkbox"/> Heat-related deaths <ul style="list-style-type: none"> ▪ Total confirmed cases <input type="checkbox"/> Power supply (primary/backup) <input type="checkbox"/> Refrigerated morgue facilities <input type="checkbox"/> Other concerns | • |
| OLR | <input type="checkbox"/> Other concerns | • |
| ORR | <input type="checkbox"/> Other concerns | • |
| PANYNJ | <input type="checkbox"/> Special events <input type="checkbox"/> Status of transportation infrastructure (PATH, airports, ports) <input type="checkbox"/> Outreach efforts <input type="checkbox"/> Other concerns | • |
| Queens Library | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ○ Open/closed ○ Facility availability ○ Census ○ Power supply <input type="checkbox"/> Other concerns | • |
| REMSCO | <input type="checkbox"/> Volunteer and proprietary service providers | • |
| Salvation Army | <input type="checkbox"/> Cooling Centers <ul style="list-style-type: none"> ▪ Open/closed ▪ Facility availability ▪ Census ▪ Power supply <input type="checkbox"/> Other concerns | • |
| VOAD | <input type="checkbox"/> Status of member organizations and available resources | • |

Annex C: Health and Air Quality Hazards

This section describes the risks and hazards of a heat emergency. Heat waves can increase the number of deaths due to natural causes. For example, the long heat wave of 2006 in New York City resulted in 40 heat stroke deaths and approximately 100 additional deaths due to natural causes (an 8% increase over the average death rate from natural causes). Although living alone is a risk factor, a 2006 Department of Health and Mental Hygiene (DOHMH) report on heat wave deaths found that approximately 53% of decedents were living with someone at the time of their death. The table below describes health hazards associated with high heat indices:

| Category | Heat Index | Health Hazards |
|-----------------|-----------------|--|
| Extreme Danger | 130°F or higher | Heat stroke likely with continued exposure |
| Danger | 105°F – 130°F | Muscle cramps and/or heat exhaustion likely. Heat stroke possible with prolonged exposure and/or physical activity |
| Extreme Caution | 90°F – 105°F | Muscle cramps and/or heat exhaustion possible with prolonged exposure and/or physical activity |
| Caution | 80°F – 90°F | Fatigue possible with prolonged exposure and/or physical activity |

Risk Factors

An individual may be more susceptible to heat-related illness or death if:

- Age 65 years or older
- Age four years or younger
- Serious chronic health condition(s) (e.g., heart disease, high blood pressure, psychiatric or cognitive disorders, Diabetes Mellitus, respiratory conditions, obesity)
- Alcohol consumption
- Medications such as tricyclic antidepressants, antipsychotic or neuroleptic medications, certain tranquilizers, some medications for Parkinson's disease, diuretics, beta blockers, calcium channel blockers, antihistamines
- Illicit drug use (e.g., amphetamines, cocaine, ecstasy)
- Heat exposure (e.g., lack of an air conditioner or presence of a working air conditioner but inability to afford a higher electric bill)
- Social isolation

Air Quality

The Air Quality Index (AQI), developed by the United States Environmental Protection Agency (EPA), is an indicator of daily air quality that measures five major pollutants:

- Ground-level ozone
- Particle pollution
- Carbon monoxide
- Sulfur dioxide
- Nitrogen dioxide

During heat events, ground-level ozone levels are elevated and can lead to smog. Health risks associated with higher ozone levels include lung infections and an increased responsiveness to allergens and other air pollutants. Ozone is particularly dangerous for active children and adults, seniors, and those with pre-existing respiratory problems.

The New York State Department of Environmental Conservation is required to report when an AQI over 100 is predicted. Ozone AQIs are more likely to be significantly elevated during heat emergencies.

Air Quality Index (AQI): Ozone

| Range | Conditions are: | Level of health concern |
|------------|--------------------------------|---|
| 0 to 50 | Good | None |
| 51 to 100 | Moderate | Unusually sensitive people should consider reducing prolonged or heavy outdoor exertion. |
| 101 to 150 | Unhealthy for Sensitive Groups | The following groups should reduce prolonged or heavy outdoor exertion: people with lung disease, children and older adults, and people who are active outdoors. |
| 151 to 200 | Unhealthy | The following groups should avoid prolonged or heavy exertion outdoors: people with lung disease, children and older adults, and people who are active outdoors. Everyone else should limit prolonged outdoor exertion. |
| 201 to 300 | Very Unhealthy | The following groups should avoid all outdoor exertion: people with lung disease, children and older adults, and people who are active outdoors. Everyone else should limit outdoor exertion. |
| 301 to 500 | Hazardous | Everyone should avoid all physical activity outdoors. |

Detailed air quality information and forecast data can be found at:

- <https://www.airnow.gov/>
- http://www.dec.ny.gov/cfm/xtapps/aqi/aqi_forecast.cfm

Ultraviolet Radiation

Excessive ultraviolet (UV) radiation exposure from sunlight can have harmful health effects, including increased risk of skin cancers. Developed by the NWS and the EPA, the UV Index predicts UV radiation levels on a 1-11+ scale, and indicates to the public the level of UV radiation. EPA will issue a UV Alert when the level of UV radiation is predicted to be high.

| Category | UV Index | Protective Measures |
|-----------|----------|--|
| Low | 0 – 2 | Apply sunscreen and wear sunglasses on bright days. |
| Moderate | 3 – 5 | Apply sunscreen and wear a hat. Stay in the shade near midday. |
| High | 6 – 7 | Apply sunscreen and wear a hat and sunglasses. Reduce sun exposure between 10AM and 4PM. |
| Very High | 8 – 10 | Take extra precautions. Apply sunscreen liberally, wear a hat and sunglasses, and cover up. Unprotected skin will be damaged and can burn quickly. Minimize sun exposure between 10AM and 4PM. |
| Extreme | 11+ | Take all precautions. Unprotected skin can burn in minutes. Stay indoors and try to avoid sun exposure between 10AM and 4PM. |

Annex D: Con Ed Electric Condition / Response Matrix





Annex E: Excavation Safety Alert Bulletin



NYC Emergency Management Infrastructure Preparedness Bulletin Excavation Safety Alert

About the Excavation Safety Alert

Contractors are required to dig safely at all times to protect underground critical facilities by following requirements outlined in the Protection of Underground Facilities Act (16 NYCRR Part 753), also known as Code 753. Under New York State law, contractors are required to "Call Before You Dig" through New York 811 (1-800-272-4480 or 811).

During periods of extreme temperatures or high system demands, the continuity of underground critical facilities that supply electric, gas, steam, water, and telecommunications becomes vital to maintaining a high level of public safety and quality of life. Based on weather conditions, the City will issue an **Excavation Safety Alert** to heighten awareness of safe excavation practices and provide additional guidance to contractors that is above and beyond what is outlined in Code 753 for facilities that are deemed critical.

If an **Excavation Safety Alert** is issued, contractors are strongly encouraged to implement the enhanced protective measures listed below for critical facilities, such as primary electric feeders, oil filled electric facilities, gas transmission mains, stream transmission mains, and telecommunications switching stations.

Suggested Actions During an Excavation Safety Alert

Enhanced Protective Actions

- Cease all activity involving excavation within eight feet from the outside edge of the facility trench to the marked critical facilities.
- Excavation activity may resume around critical facilities only if the contractor digs by hand and uncovers the critical facility. Once the location and extent of the critical facility is visually confirmed, excavation may resume utilizing powered equipment to within four feet of the edge of the critical facility.
- Other restricted activities in the presence of critical facilities include, but are not limited to, backfilling and tamping and installing piping under critical facility crossings. When these activities are necessitated by schedule or work area restrictions/stipulations, the contractor may proceed with extreme caution.
- Utilize an excavator observer or "pit man" to the assist the equipment operator when operating excavation equipment.

General Protective Activities

- Call Before You Dig: New York 811 (1-800-272-4480 or 811)
- Wait the required time
- Confirm utility response
- Respect the markings
- Dig with care: take all reasonable steps necessary to avoid damage to and/or interference with underground facilities

Excavation Safety Alert Information Sources

| | |
|------------------------------------|--|
| Non-emergency | 311 |
| Emergencies | 911 |
| New York 811 | 1-800-272-4480 or 811 http://newyork-811.com/ |
| New York City Emergency Management | NYC.gov/emergencymanagement |

Annex F: Spray Cap Program



DCN: 1.02.02

A.B.C. 10 - 94, ADDENDUM 4

SPRAY CAP PERMIT / INSTRUCTIONS

PERMIT:

This is to certify that _____ is authorized to be in possession of Fire
(Name)
Department of New York Spray Cap.

INSTALLATION:

1. Spray caps **SHOULD NOT** be installed on hydrants located on mains larger than 20 inches in diameter (main size is stenciled on barrel of hydrant).
2. No caps are to be placed on hydrants painted **RED** or **YELLOW**.
3. Caps should not be installed on hydrants on two-way streets, near intersections, on bus routes or access routes to main traffic arteries.

OPERATIONAL:

1. Hydrants with spray caps when in operation, be under direct supervision of a responsible adult **AT ALL TIMES**.
2. Hydrants shall not be operated without a spray cap.
3. Spray caps may be used only between 10:00 AM and 9:00 PM.
4. Hydrants **MUST** be turned off when children are not using spray. Locked hydrants will be turned off by the Fire Department.
5. The Fire Department reserves the right to shorten the time of operation, and limit the number of spray caps in operation when use results in a reduction of water pressure.
6. Use of spray caps may be terminated any time the foregoing instructions are violated or in the event of an emergency.

Any difficulty in operating, opening, closing hydrants or installing spray caps should be reported to issuing Fire Company.

ISSUED BY: _____
UNIT NUMBER TELEPHONE NUMBER



DCN: 1.02.02

A.B.C. 10 - 94, ADDENDUM 3

REQUEST FOR SPRAY CAPS

UNIT: _____ DATE: _____

NAME: _____

OTHER (NAME OF GROUP): _____

ADDRESS: _____

PHONE # _____

HYDRANT LOCKED: YES _____ NO _____

HYDRANT LOCATION:

ADDRESS: _____
FRONT OF STREET NAME

BETWEEN STREETS: _____ AND _____

HOURS OF OPERATION: _____

COMMENT:

APPROVED BY: _____
RANK/NAME UNIT DATE



DCN: 1.02.02

A.B.C. 10 - 94
May 30, 1995

SPRAY CAP HYDRANT LOCKING PROGRAM

1. INTRODUCTION

- 1.1 Federal and State environmental laws have mandated the City to control the amount of pure water wasted by open fire hydrants and at the same time prevent the over taxing of sewerage treatment plants.
- 1.2 Open fire hydrants can cause life threatening situations for both Firefighters and Civilians, by causing dangerous drops in water pressure which is so vitally needed to combat fire.
- 1.3 Department of Environmental Protection has attempted to address this problem by installing 30,000 Custodian Locking Devices throughout the Boroughs of Manhattan, Bronx and Brooklyn.
- 1.4 In addition, the Fire Department has been charged with distributing spray caps to the public in order to provide relief and at the same time save water consumption.
- 1.5 An open fire hydrant discharges approximately 1,000 gallons of water per minute where as a spray cap discharges 25 gallons.

2. DISTRIBUTION

- 2.1 Spray caps and wrenches will be delivered to most Battalions depending on the demographic make up of the district (population, social economic make up, etc.).
- 2.2 Battalions will distribute spray caps and wrenches to Engine Companies and single Ladder Units.

3. PROCEDURE

- 3.1 Areas where Custodian Locking Devices are not installed , i.e. Queens, Staten Island and selected Community Boards in other Boroughs.

FDNY
May 30, 1995

DCN: 1.02.02
SPRAY CAP HYDRANT LOCKING PROGRAM

A.B.C. 10 - 94

3.1.1 When a person enters quarters requesting a Spray Cap, the House Watch shall:

- A. Ascertain that the requesting party is over 18 years old.
- B. Require that a Spray Cap Form (Addendum 3), be completed.
- C. Evaluate the completed form. If satisfactory, provide a spray cap, wrench and permit/instruction sheet (Addendum 4).
- D. It is important to emphasize that the hydrant should only be partially turned on, just enough to get an adequate spray stream.

3.2. Areas equipped with Custodian Locking Devices.

3.2.1 When a person enters quarters requesting a Spray Cap the House Watch shall:

- A. Ascertain that the requesting party is over 18 years old.
- B. Require that a Spray Cap Form be completed.
- C. Explain that the hydrant is equipped with a Custodian Locking Device, which requires the Fire Department to turn the hydrant on/off.
- D. Consult with the Officer on duty and notify the applicant approximately when the company will be able to turn on the hydrant. This should usually be scheduled within the hour.
- E. Provide Unit telephone number to the applicant for future use and give a copy of Permit/Instruction Sheet (Addendum 4).
- F. Officer on duty should schedule to turn off hydrant during 6x9 Tour and remove spray cap.
- G. After the initial request is received and approved, if a unit receives many requests to turn on hydrants with spray caps, the Company Commander may want to set up a policy where the unit goes out and places spray caps on all the hydrants for the day with applications on file. This would eliminate many individual trips to turn on hydrants. This decision should be based on weather conditions (hot and humid).
- H. Units shall maintain a file on Spray Cap Location Request for use by covering officers, etc.

4. REQUEST FROM POLICE DEPARTMENT.

- 4.1 The Police Department may request the Fire Department to install and turn on locked hydrants in sensitive locations. These requests will usually come via the Dispatcher. Officer on duty shall give these requests a top priority.

5. COMMUNITY GARDENS

- 5.1 There are many Community Sponsored Gardens throughout the City that use fire hydrants for water. Units are not to turn on these hydrants, but they shall inform the requesting party to contact:

Operation Green Thumb
49 Chambers Street
Room 1020
New York, New York 10007
Telephone No.: (212) 788-8059

6. PRIVATE CONTRACTORS, PUBLIC AGENCIES AND OTHER COMMUNITY GROUPS. (Boys Clubs, etc.).

- 6.1 These organizations may need to use a locked hydrant on a daily basis. Officers on duty shall refer these requests to the Department of Environmental protection attention:

Mr. Frank Oliveri
59-17 Junction Boulevard
Corona, New York 11368
Telephone No. (718) 595-4179

- 6.2 There are exceptions to Section 6.1, where Engine Companies would be required to respond to open and close locked hydrants, i.e. Con Edison may need to cool over heated transformers during periods of extremely hot weather. These request will come via the Fire Department Dispatcher.

7. REMARKS

- 7.1 Units shall carry some spray caps on the apparatus. When shutting down open fire hydrants, the officer shall encourage a responsible adult to come to the firehouse to request a spray cap. If a tense situation develops, the Officer should consider placing a spray cap on the hydrant. If tension escalates, call for Police assistance. Units shall fill out Request Form for Spray Caps (Addendum 3) for record keeping purposes.

7.1.1 UNDER NO CIRCUMSTANCES SHOULD A CUSTODIAN WRENCH BE GIVEN OR LOANED TO THE PUBLIC.

- 7.1.2 Engine Company Chauffeurs should not leave the Custodian Wrenches unattended on the hydrant. The wrench should be placed in a secure place on the apparatus once the hydrant is turned on. Wrenches in the hands of the public will defeat the Hydrant Locking Program.

8. RECORDKEEPING

- 8.1 Copies of request for Spray Caps (Addendum 3) shall be faxed to Water Resource Officer at (718) 522-6771 or (718) 596-8006.

BY ORDER OF THE FIRE COMMISSIONER AND CHIEF OF DEPARTMENT

Annex G: Press Release Template

FOR IMMEDIATE RELEASE
#XXX-18

NYC EMERGENCY MANAGEMENT AND THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE URGE NEW YORKERS TO TAKE PRECAUTIONS DURING EXTREME HEAT XXX

Cooling centers are open across the City on XXX; to find the nearest cooling center, call 311 or visit www.nyc.gov/beattheheat beginning at XXX

XXX, XXX — The New York City Emergency Management Department and the Department of Health and Mental Hygiene today advised hot weather that could be dangerous to vulnerable populations is forecast for XXX. The National Weather Service has issued a heat advisory in effect through XXX. High heat and humidity are expected, with temperatures in the 90s and heat index values in the upper 90s on XXX.

“Extreme heat is dangerous, especially for vulnerable New Yorkers,” said **New York City Emergency Management Commissioner Joseph Esposito**. “I urge everyone to think about their safety and the safety of others around them by checking in on family, friends, neighbors, senior citizens, and those with chronic health conditions.”

“Extreme temperatures affect people of all ages, but older adults and people with chronic medical conditions are at increased risk for heat-related illnesses such as heat exhaustion or heat stroke,” said **Health Commissioner Dr. Mary T. Bassett**. “The best way to help those at risk is to help them get to a cool place and make sure they drink plenty of water.”

To help New Yorkers beat the heat, New York City will open cooling centers throughout the five boroughs on XXX. Cooling centers are air-conditioned facilities such as libraries, community centers, senior centers, and NYCHA facilities that are open to the public during heat emergencies. To find a cooling center, including accessible facilities closest to you, call 311 (TTY: 212-504-4115) or visit the NYC Cooling Center Finder at www.nyc.gov/beattheheat beginning at XXX.

CHECK ON THOSE PARTICULARLY VULNERABLE TO THE HEAT:

- A small but crucial gesture can help ensure that we all have a safe and healthy summer. Get to know your neighbors, and contact neighbors and relatives – in person or by phone – at least twice a day during heat waves or extreme heat.
- Pay special attention to vulnerable friends, family, and neighbors such as the elderly, the very young, and anyone with a pre-existing medical condition. New

- Yorkers should check in on older neighbors who may be isolated from friends and family.
- In New York City, most heat-related deaths occur after exposure to heat in homes without air conditioners. Air conditioning is the best way to stay safe and healthy when it is hot outside, but some vulnerable people do not have an air conditioner or do not turn it on when they need it. Encourage them to use air conditioning. Help them get to an air-conditioned place if they cannot stay cool at home. Make sure they are drinking enough water.
 - The Department of Homeless Services has issued a Code Red Alert and has enhanced outreach. Single adults can present to any shelter to seek refuge from the heat. Transportation is also available to cooling centers via DHS outreach teams, which are checking on vulnerable, at-risk clients with greater frequency.
 - The Department for the Aging has opened senior centers as cooling centers; case management community partners are calling homebound seniors that receive in-home services.
 - An Excavation Safety Alert has been issued from XXX, through XXX. Contractors are strongly encouraged to implement enhanced protective measures before digging.

ADDITIONAL HEALTH AND SAFETY TIPS FOR PROTECTION AGAINST THE HEAT:

- Stay out of the sun and avoid extreme temperature changes.
- Wear lightweight, light-colored clothing.
- Drink fluids, particularly water, even if you do not feel thirsty. Your body needs water to keep cool. Those on fluid-restricted diets or taking diuretics should first consult their physician.
- Water is the safest liquid to drink during heat emergencies. Avoid beverages containing alcohol and/or caffeine.
- Eat small, frequent meals.
- Avoid strenuous activity, especially during the sun's peak hours: 11 a.m. to 4 p.m. If you must do strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4 a.m. and 7 a.m.
- If possible, go to an air-conditioned building for several hours during the hottest parts of the day.
- Cool down with a cool bath or shower.
- Participate in activities that will keep you cool, such as going to the movies, shopping at a mall, or swimming at a pool or beach.
- Cover all exposed skin with an SPF sunscreen (15 or above) and wear a wide-brimmed hat to protect your face and head.
- Never leave your children or pets in the car.

For more information, visit www.nyc.gov/health.

FACTS ABOUT HEAT ILLNESS:

Heat illness is serious. Prolonged exposure to the heat can be harmful and potentially fatal. The added stress caused by heat can also aggravate heart or lung disease even without symptoms of heat illness. The risk for getting sick during a heat wave is increased for people who:

- Do not have or do not use air conditioning.
- Are ages 65 or older.
- Have chronic medical or mental health conditions.
- Take certain medications, which can disrupt the regulation of body temperature.
- Are confined to their beds, have trouble with being mobile, or are unable to leave their homes.
- Are overweight.
- Consume alcohol or illegal drugs.

Know the warning signs of heat stress. If you or someone you know feels weak or faint, go to a cool place and drink water. If there is no improvement, call a doctor or 911.

Call 911 immediately if you have, or someone you know has:

- Hot dry skin OR cold clammy skin.
- Trouble breathing.
- Rapid heartbeat.
- Confusion, disorientation, or dizziness.
- Nausea and vomiting.

KEEPING YOUR PETS SAFE

- **Avoid dehydration:** Pets can dehydrate quickly, so give them plenty of fresh, clean water.
- **Exercise early and late:** When the temperature is very high, don't let your dog linger on hot asphalt. Your pet's body can heat up quickly, and sensitive paw pads can burn.
- **Know when your pet is in danger:** Symptoms of overheating in pets include excessive panting or difficulty breathing, increased heart and respiratory rate, drooling, mild weakness, stupor, or even collapse. Animals with flat faces like pugs and Persian cats are more susceptible to heat stroke since they cannot pant as effectively. They should be kept cool in air-conditioned rooms as much as possible.
- **Keep cats safe by installing screens in your windows:** Unscreened windows pose a real danger to cats, as they can fall out of them often during summer months.

IMPROPER FIRE HYDRANT USE:

The improper opening of fire hydrants wastes 1,000 gallons of water per minute, causes flooding on city streets, and can lower water pressure to dangerous levels and hamper the ability of FDNY to fight fire safely and quickly.

Properly used “spray caps” reduce hydrant output to a safe 25 gallons per minute while still providing relief from the heat. To obtain a spray cap, an adult 18 years or older with proper identification can go to his or her local firehouse and request one.

ENERGY-SAVING TIPS:

During periods of intense electrical usage, such as on hot, humid days, it is important to conserve energy as much as possible to avoid brownouts and other electrical disruptions. While diminishing your power usage may seem like an inconvenience, your cooperation will help to ensure that utilities are able to continue to provide uninterrupted electrical service to you and your neighbors:

- Set your air conditioned to the highest comfortable temperature. Each degree you lower the thermostat drives up your bill by 6 percent.
- To reduce heat and moisture in your home, run appliances such as ovens, washing machines, dryers and dishwashers in the early morning or late at night when it's cooler outside.
- When the air conditioner is running, close doors to keep cool air in and hot air out.
- Keep shades, blinds, and curtains closed. About 40 percent of unwanted heat comes through windows.
- Turn off air conditioners, lights, and other appliances when not at home and use a timer or smart technology to turn on your air conditioner about a half-hour before arriving home.
- Keep air conditioner filters clean.

-30-

MEDIA CONTACT: Nancy Silvestri/Omar Bourne [\(718\) 422-4888](tel:7184224888)

STAY CONNECTED: Twitter: @NotifyNYC (emergency notifications)
@nycoem (emergency preparedness info)

Facebook: /NYCemergencymanagement

Annex H: Beat the Heat

READY NEW YORK

BEAT THE HEAT

- Check on your neighbors, family, and friends, especially if they are vulnerable to heat.
- Stay in a cool place as much as possible. If you do not have an air conditioner, consider cooling off at a pool, or in an air-conditioned store, mall, movie theater, or cooling center.
- Call 911 if you or someone you know shows signs or symptoms of heat illness, including headache, light headedness, muscle cramps, nausea, and vomiting.
- Drink fluids – particularly water – even if you do not feel thirsty.
- Stay informed during heat emergencies. Register for emergency notifications by visiting NYC.gov/notifynyc, contacting 311, or following @NotifyNYC on Twitter.

To find a cooling center near you and get additional tips on how to prepare for extreme heat, visit NYC.gov/EmergencyManagement or call 311 (212-639-9675 for Video Relay Service, or TTY: 212-504-4115).

NYC Mayor Bill de Blasio

Emergency Management Commissioner
Joseph J. Esposito

Department of Health & Mental Hygiene Commissioner
Mary T. Bassett, MD, MPH